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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/203,086	12/01/1998	BRUCE A. PHILLIPS	020366-055400US	3773
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Qwest Communications International Inc. 1801 California Street, # 900 Denver, CO 80202				
EXAMINER				
NGUYEN, STEVEN H D				
ART UNIT		PAPER NUMBER		
2473				
MAIL DATE		DELIVERY MODE		
02/10/2011		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary****Application No.**

09/203,086

**Applicant(s)**

PHILLIPS ET AL.

**Examiner**

Steven HD Nguyen

**Art Unit**

2473

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 9/14/2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Arguments***

1. In view of the appeal brief filed on 7/14/2003, PROSECUTION IS HEREBY REOPENED. A new ground of rejection set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

/KWANG B. YAO/

Supervisory Patent Examiner, Art Unit 2473.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 2473

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3-4, 7, 9-10 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mchale (USP 5905781) in view of Bardutz (USP 4766606) and Akers (USP 6118766).

As claims 1, 3-4, 7, 9-10 and 13-14, McHale discloses a central office including a XDSL transceiver for transmitting a video, digital and telephone signals to the end users and receiving the data signals (Fig 4, Ref 160 is an XDSL modem at the central office of Fig 1, Ref 14) and a user has a XDSL transceiver (Fig 1, Ref 30 which includes ADSL and VDSL) for receiving a video signal (Video on demand) via twisted pair copper cable and transmitting data signals to the central office (See col. 6, lines 55-67) and an addition communication technology that extend the maximum length and quality of communication signal (Col. 7, lines 5-15). However, McHale does not disclose a regenerator which disposes between the central office and the end user, having a transceiver, a decoder and encoder. In the same field of endeavor, Akers discloses a repeater which disposes between the central office and the end user for regenerating signal if the distance between the central office and end user is greater than a predetermined distance (See Figs 3-4, Ref 7 and col. 4, lines 32-37). However, Mchale and Akers do not disclose a decoder and encoder. In the same field of endeavor, Bardutz discloses (Col 2, lines 45 to col. 4, lines 14) a repeater "regenerator" (Fig 1, Ref Rep 1) which disposes between the central office (Fig 1, Ref office terminal), includes a receiver for receiving a signal (col. 2, lines 51, coupling means), a decoder (col. 2, lines 55-60, data recovery means) for decoding the payload of a received signal

into a base data, a encoder (Col. 2, lines 60-65) for encoding and repacking the base data into a desired protocol format and a line driver (Col. 2, lines 52-53, the regenerated signals is recoupled to the line) for retransmitting the encoded signals to the end user wherein the repeater is disposed at a predetermined distance where the SNR of the signal is reached to a threshold of minimum acceptable signal quality (it is implicitly).

Since, McHale suggests an addition communication technology that extends the maximum length and quality of communication signal (Col. 7, lines 5-15) and Askers suggests a regenerator must be placed between the central office and the user if a distance between the central office and user is over a predetermined distance to generate received signal into a new signal which has the same quality and distance as an original signal. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a repeater for regenerating a signal between the central office and the end user by using transceiver, decoder and encoder as disclosed by Bardutz into a teaching of Akers such as regenerating a signal between the central office and the end user into McHale's telecommunication system. The motivation would have been to prevent a signal to be degraded and reduce cost.

4. Claims 2, 5-6, 8 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over McHale, Akers and Bardutz as applied to claims 1 and 7 above, and further in view of Fosmark (USP 6084881).

Regarding claims 2 and 8, McHale, Akers and Bardutz do not disclose a repeater for repackaging the base data into ATM protocol or a direct transmission protocol format depending on the protocol requirements of the destination terminal. However, Fosmark

discloses a XDSL transceiver for selecting between a direct transmission protocol "Ref 72 and 66" and ATM protocol "Ref 66 and 70" to repackaging the base data for transmitting to the destination terminal.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a method of selecting between a direct transmission protocol "Ref 72 and 66" and ATM protocol "Ref 66 and 70" to repackaging the base data as disclosed by Fosmark into Akers, Bardutz and McHale's telecommunication system. The motivation would have been to prevent a signal to be degraded and reduce cost.

Regarding claims 5-6 and 11-12, McHale, Akers and Bardutz do not disclose the claimed invention. However, a transceiver for generating a fixed rate and variable rate is well-known and expected in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a transceiver for generating a fixed rate and variable rate into a McHale, Akers and Bardutz's telecommunication system. The motivation would have been to prevent a signal to be degraded and reduce cost.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven HD Nguyen whose telephone number is (571) 272-3159. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yao Kwang can be reached on (571) 272-3182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2473

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Thursday, 10 February, 2011

/Steven HD Nguyen/

Primary Examiner, Art Unit 2473